DOCKET NO.: \*\*JM-0003 PATENT

**Application No.:** 10/586,160

Office Action Dated: February 18, 2009

#### REMARKS

Claims 22 through 43 are pending in the present application. Applicant proposes amending claims 22, 31, 42, and 43. Applicant proposes canceling claims 23, 24, and 25.

Claims 22-25, 31, 33, 34, and 41-43 stand rejected under 35 U.S.C. § 102(b). Claims 26-30, 32, and 35-40 stand rejected under 35 U.S.C. § 103(a).

Reconsideration is respectfully requested in view of the following remarks.

# Claim Of Priority

In the previous office action dated July 31, 2008, the Office indicated that certified copies of priority applications had not been provided in the present application. In Applicants' reply dated December 31, 2008, Applicants noted that copies of the priority documents had been submitted in the corresponding PCT application. Accordingly, certified copies of the priority documents are not required to be resubmitted in connection with the present application. Applicants respectfully request that the Office confirm that filing of priority documents in the present application is not required.

## **Prior Art Rejections**

Claims 22-25, 31, 33, 34, and 41-43 stand rejected under 35 U.S.C. § 102(b) as allegedly being anticipated by U.S. patent no. 5,508,709 (hereinafter "Krenz"). Claim 26 stands rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Krenz in view of U.S. patent no. 7,162,209 (hereinafter "Ono"). Claims 27-30, 32, and 35-40 stand rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over Krenz in view of Ono and in further view of U.S. patent no. 6,792,246 (hereinafter "Takeda"). Reconsideration is respectfully requested in view of the following remarks.

Applicants disclose:

first and second mechanical coupling elements that cooperate to mechanically couple the first and second components so as to allow movement of at least one of the first and second components relative to the other, wherein each of the first and second mechanical coupling elements provides a respective signal coupling means and the signal coupling means cooperate to enable wireless coupling of a

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signal from one of the first and second components to the other of the first and second components. (Specification at ¶ [0006]).

In one disclosed embodiment:

[0039] [a]s shown in FIGS. 1 and 2, the mechanical coupling between the main body and the display screen is in the form of a hinge assembly 202 as is conventional for such video cameras. However, . . . the multi-wire cable connection (generally a flat ribbon cable) normally provided within the hinge assembly to electrically connect the main body and the display screen is replaced by capacitive wireless coupling.

[0040] As can be seen most clearly in FIG. 2, in this example the hinge assembly comprises first and second aligned but spaced-apart hinge members 101 and 102 carried by the main body 200 and a third elongate hinge member 103 carried by the display screen 201. Alternatively the third elongate hinge member 103 may be carried by the man body 200 and the hinge members 101 and 102 by the display screen 201.

[0041] The ends of the third hinge member have chamfered projecting regions 104 and 105 which are received in respective complementarily chamfered recesses (only one 106 of which can be seen in FIG. 2) of the first and second hinge members 101 and 102 so that the third hinge member 103 can rotate about its axis relative to the first and second hinge members. The axis of the third hinge member thus defines the axis of rotation of the display screen 201 relative to the main body 200 of the video camera. In this example, the capacitive wireless coupling comprises two capacitive couplers each consisting of two capacitive coupling elements separated by a dielectric. Each capacitive coupling element is a circular electrically conductive plate 205 or 206. The capacitive coupling elements 205 are fitted into the recesses 106 of the first and second hinge members and the capacitive coupling elements 206 are carried by the projecting regions 104 of the third hinge member 103 to define two sets of parallel spaced-apart electrically conductive plates that are coaxial with the rotation axis of the hinge. The dielectric may simply be air or could be any suitable material providing the required dielectric and friction properties, for example a plastics material such as polyethylene or polytetrafluorethylene (PTFE) (which has the advantage of a

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very low coefficient of friction), or a ceramics material. (Specification at ¶¶ [0039]-[0041]).

### Claim 22 recites:

An apparatus comprising first and second components having respective first and second mechanical coupling elements that cooperate to allow relative movement of the first and second components, the first mechanical coupling element comprising a recess formed therein and the second mechanical coupling element comprising a projection adapted to be movably fitted in the recess,

wherein the <u>first mechanical coupling element</u> comprises a first conductive plate positioned in the recess and the second mechanical coupling element comprises a second conductive plate positioned on the projection, and the second conductive plate is configured to wirelessly couple a signal from one of the first and second components to the other of the first and second components.

In order for a reference to anticipate this claim, the reference must disclose each and every element of the recited claim language. Applicants respectfully submit that the cited references do not disclose or suggest the above-emphasized claim language and therefore cannot possibly anticipate or even suggest the recited combination.

*Krenz* discloses a flip phone with an integrated antenna. A transformer, having a winding in the flip element and a winding in the housing, couples electromagnetic energy across the hinge. (Krez at Abstract). More particularly, Krenz discloses a flip element 104 with two hinge knuckles 112 and a housing with two supporting knuckles 116 and 118. (Krenz at Col. 2, Il. 32-35). An axis 206 extends through the knuckles 112, 116, and 118 and secures the flip element to the housing. (See Krenz at Figs. 2, 3, and 6). A thin metal loop winding 201 is formed in flip element hinge knuckle 112, (Krenz at Col. 2, Il. 55-57), while a thin metal loop winding 301 is formed in housing central knuckle 114. (Krenz at Col. 2, Il. 63-66). Windings 201 and 301 are formed around and encircle axis 206, (Krenz at Figs. 2, 3, and 6), and are positioned coaxially and opposite each other so as to provide electrical communication between the flip element and the housing. (Krenz at Col. 3, Il. 1-5).

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Thus, Krenz discloses a flip phone with an axis running through knuckles 112, 116, and 188 and with windings 201 and 301 formed around the axis. In contrast with claim 1, Krenz does not disclose or suggest:

the first mechanical coupling element <u>comprising a</u> <u>recess formed therein</u> and the second mechanical coupling element <u>comprising a projection adapted to be movably</u> fitted in the recess,

wherein the <u>first mechanical coupling element</u> comprises a first conductive plate positioned in the recess and <u>the second mechanical coupling element comprises a second conductive plate positioned on the projection</u>.

Rather, Krenz discloses a series of knuckles 112, 116, and 188 with an axis that runs through the knuckles to hold flip element to the housing of the phone. Thus, in the device disclosed by Krenz, there is no "mechanical coupling element comprising a recess formed therein and the second mechanical coupling element comprising a projection adapted to be movably fitted in the recess." Furthermore, because Krenz does not disclose a "first mechanical coupling element comprising a recess" and a "second mechanical coupling element comprising a projection," it cannot possibly disclose "the first mechanical coupling element compris[ing] a first conductive plate positioned in the recess," and "the second mechanical coupling element compris[ing] a second conductive plate positioned on the projection."

*Ono* does not address the limitations of Krenz. Ono discloses a cellular phone. The disclosed phone comprises two casings that are bendably connected to each other and communicate to each other using infrared rays. (Ono at Abstract). In particular, Ono discloses placing two communication infrared modules 5, 7 in close proximity to each other in a cylindrical space formed in the connecting portion 8 of the phone. (Ono at Col. 4, ln. 57 – Col. 5, ln. 20). The two casings are mechanically connected to each other using hinges positioned on either side of the cylindrical space. (*See* Ono at Fig. 4 and 8).

In contrast with claim 1, Ono does not disclose or suggest:

the first mechanical coupling element <u>comprising a</u> <u>recess formed therein</u> and the second mechanical coupling element <u>comprising a projection adapted to be movably</u> fitted in the recess,

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wherein the <u>first mechanical coupling element</u> comprises a first conductive plate positioned in the recess and <u>the second mechanical coupling element comprises a</u> second conductive plate positioned on the projection.

Rather, Ono discloses two hinge assemblies holding the phone portions together. In the device disclosed by Ono, there is no "mechanical coupling element comprising a recess formed therein and the second mechanical coupling element comprising a projection adapted to be movably fitted in the recess." Furthermore, because Ono does not disclose a "first mechanical coupling element comprising a recess" and a "second mechanical coupling element comprising a projection," it cannot possibly disclose "the first mechanical coupling element compris[ing] a first conductive plate positioned in the recess," and "the second mechanical coupling element compris[ing] a second conductive plate positioned on the projection."

*Takeda* does not address the limitations of Krenz and Ono. Takeda discloses a noncontact transmitting apparatus. Takeda discloses a main device 2, *i.e.*, a phone, and a camera 3. (Col. 4, ll. 34-37). Takeda discloses that the camera 3 may be removed from the main device 2 and used with other systems. (Col. 6, ll. 21-27). Takeda further discloses a loading/unloading device 9 for attaching the removable camera section 3 to the main device 2. (Col. 4, ll. 47-49). In order to add to the ordinary cellular phone function, the function of transmitting the a video signal captured by the camera, the camera section 3 is loaded on the mobile main device 2 through the loading/unloading device 9 as shown in Figures 3 and 4. (Col. 6, ll. 28-32).

Thus, Takeda discloses two separate devices 2 and 3, each with transmitting units 8, where the devices are held together using device 9. But in contrast with claim 22, Takeda does **not** disclose or suggest

the first mechanical coupling element <u>comprising a</u> <u>recess formed therein</u> and the second mechanical coupling element <u>comprising a projection adapted to be movably</u> fitted in the recess,

wherein the <u>first mechanical coupling element</u> <u>comprises a first conductive plate positioned in the recess</u> and <u>the second mechanical coupling element comprises a</u> second conductive plate positioned on the projection.

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Rather, Takeda discloses a loading device 9 used to hold devices 2 and 3 together. The loading device 9 does not comprise a "mechanical coupling element comprising a recess formed therein and the second mechanical coupling element comprising a projection adapted to be movably fitted in the recess." The loading device certainly does not disclose "the first mechanical coupling element compris[ing] a first conductive plate positioned

in the recess," and "the second mechanical coupling element compris[ing] a second

conductive plate positioned on the projection."

Therefore, because the cited references do not disclose the recited claim elements, the references cannot possibly disclose the recited combination. Accordingly, claim 22 and its dependent claims are not rendered anticipated or rendered obvious. Although their language is different from that of claim 1, claims 42 and 43 patentably define over the cited references for similar reasons.

Reconsideration and withdrawal of the rejections under 35 U.S.C. § 102 and 103 is respectfully requested.

### Conclusion

In view of the foregoing amendments and remarks, applicants submits that the above-identified application is in condition for allowance. Early notification to this effect is respectfully requested. If the Examiner has any questions regarding this response, the Examiner is invited to contact the undersigned attorney at (215) 568-3100.

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